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SOIL SURVEY INTERPRETATIONS FOR WOODLANDS

IN THE

SOUTHERN COASTAL PLAIN AND BLACKBELT AREAS

OF

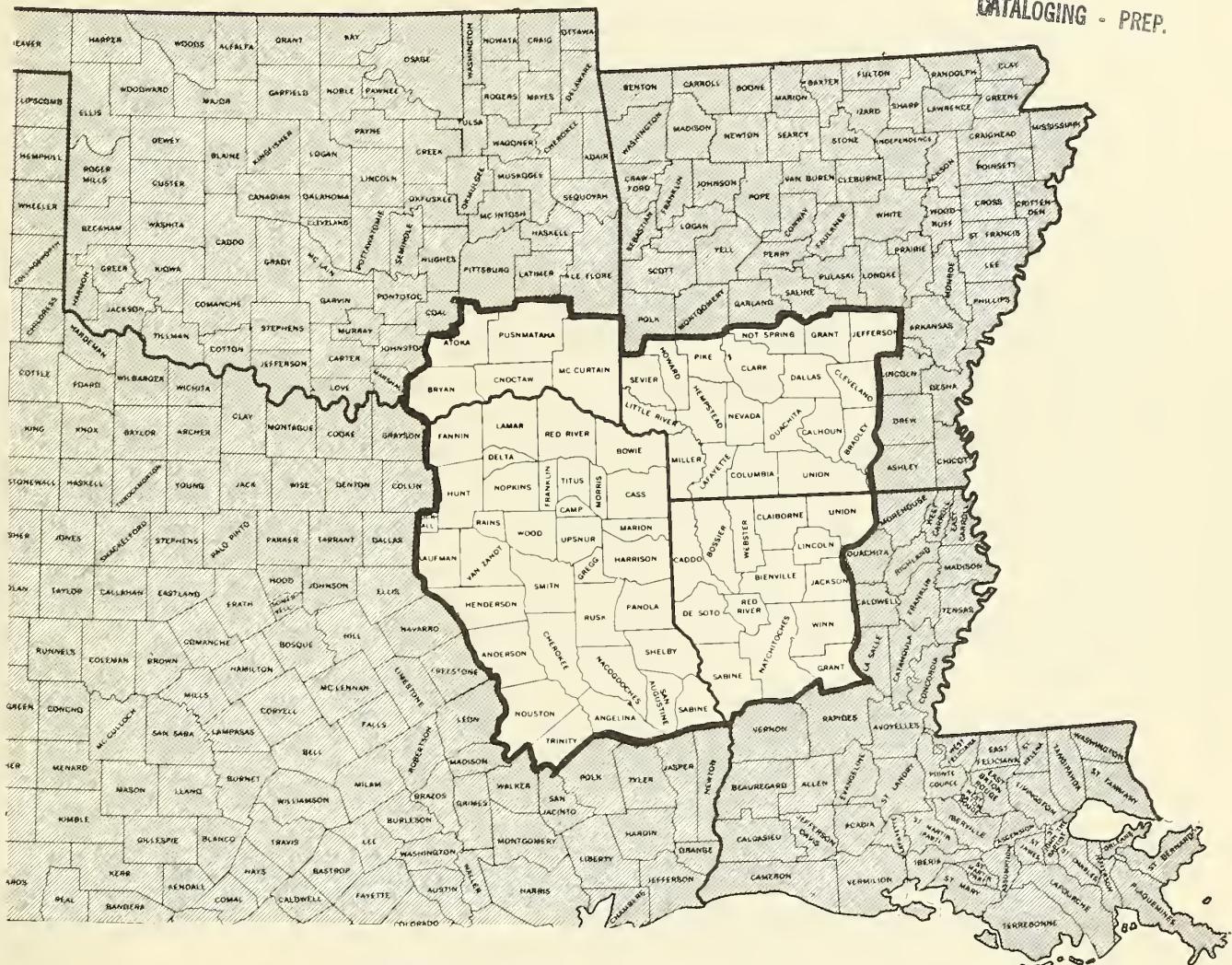
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With Average Rainfall of 25 to 30 Inches

MAR - 1 1973

During the Frost-Free Period

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PROGRESS REPORT W-2 -- JULY 1968

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Fort Worth, Texas

INTRODUCTION

This report contains interpretations of soil surveys for woodland use and management in the Southern Coastal Plain and Blackbelt areas of Arkansas, Louisiana, Oklahoma, and Texas, with mean precipitation of 25 to 30 inches during the frost-free period. The purpose is to provide currently available knowledge about soils as they relate to the establishment, growth, management, and harvesting of wood crops for the use of foresters, agricultural workers, woodland owners, and woodland managers. The information will be used by the Soil Conservation Service and co-operating agencies in the development of work unit (county) technical guides, soil handbooks, and published soil survey reports.

Field information was gathered by teams of foresters and soil scientists. Representatives of Federal and State agencies, the wood-using industry, and others cooperated in gathering field data. Information obtained from soil-woodland studies was recorded by soil taxonomic units. The interpretations presented herein are made for soil mapping units and for use with soil surveys.

Table 2, SOIL RATINGS FOR WOODLAND USE, includes some evaluations for individual mapping units. The soil series listed are those defined according to the current soil classification system. In column one (1) the mapping units including slope and erosion phases, and textural classes, were consolidated within a soil series where it was determined there were no differences in productivity, species suitability, or management problems.

Column two (2) includes a list of some of the commercially important tree species which are adapted to the soil in column one. These are the

tree species which woodland managers will generally favor in intermediate or improvement cuttings, after considering the form and vigor of individual trees. Priority between species will be influenced by local marketability and the owner's objectives, as well as by growth rates, values, and the quality of wood products from a given species.

Column three (3) indicates the average site index for the most important species listed in column two. The standard deviation is shown as a plus or minus figure (+) for each species where five or more plots were taken on the mapping units listed in column one. The site index curves used for each tree species are shown in Table 1, GUIDE FOR WOODLAND SUITABILITY CLASSES. An asterisk (*) following the site index rating indicates the rating is an estimate based on the same species on a similar soil, or by comparison with another species on the same soil. Site index is the average height of dominant trees at age 30 for cottonwood, age 35 for sycamore, and age 50 for all other species.

Column four (4) indicates the range of site index of the most important tree species in column two. The range in site index values is dependent on soil physical conditions, aeration, and nutrient and moisture availability during the growing season.

Column five (5) evaluates the potential erosion hazard of the soil in woodland use following cutting operations, or where the soil is exposed along roads, trails, firebreaks, or log-yarding areas. A rating of slight indicates that problems of erosion control are unimportant. A rating of moderate indicates some attention must be given to prevent unnecessary soil erosion. A rating of severe indicates that intensive treatments, or special equipment and methods of operation should be planned to minimize

soil erosion. The potential erosion hazard is based on slope, soil depth, and erodibility, and soil loss tolerance.

Column six (6) includes evaluation of equipment restrictions. Ratings reflect limitations in the use of equipment for managing or harvesting the tree crop. A rating of slight indicates equipment use is seldom limited in kind or time of year. A rating of moderate indicates a need for modified equipment or seasonal restrictions due to slope, stones, obstructions, soil wetness, flooding, or overflows. A rating of severe indicates the need for specialized equipment due to one or more of the factors listed above.

Column seven (7) indicates the degree of expected seedling mortality during the first two growing seasons after planting or seeding. Normal rainfall, adequate site preparation, good planting stock, proper planting methods, and appropriate protection and cultivation are assumed. A rating of slight indicates that unsatisfactory survival on less than 25 percent of the area is likely. A rating of moderate indicates that unsatisfactory survival is likely on 25 to 50 percent of the area planted. A rating of severe indicates that unsatisfactory survival is likely on more than 50 percent of the area.

Column eight (8) lists several suitable tree species for planting on the soil named in column one. The list may include some species which do not normally occur in native stands on the designated soil or in this physiographic area, as well as some of the important species listed in column two.

Column nine (9) shows the ordination of the mapping units into a woodland suitability group. A woodland suitability group is made up of kinds of soil that are capable of producing similar kinds of wood crops,

that need similar management to produce these crops, and that have about the same potential productivity. The ordination system and the suitability group symbols are explained in the following paragraphs.

The first element of the group symbol indicates the woodland suitability class. It expresses site quality by an arabic numeral ranging from 1 to 5, with class 1 the highest in potential productivity, followed by class 2, 3, 4, and 5. It is based on the average site index of one or more indicator forest types or tree species, as shown in Table 1, GUIDE FOR WOODLAND SUITABILITY CLASSES. The indicator species are underscored in column two of Table 2.

The second element in the symbol indicates the suitability subclass. It expresses selected soil properties that cause moderate to severe hazards or limitations in woodland use or management, by one of the following lower case arabic letters:

Subclass x (stoniness or rockiness). Soils having restrictions or limitations for woodland use or management due to stones or rocks.

Subclass w (excessive wetness). Soils in which excessive water, either seasonally or year long, causes significant limitations for woodland use or management. These soils have restricted drainage, high water tables, or overflow hazards which adversely affect either stand development or management.

Subclass t (toxic substances). Soils that have, within the rooting zone, excessive alkalinity, acidity, sodium salts, or other toxic substances that limit or impede development of desirable tree species.

Subclass d (restricted rooting depth). Soils with restrictions or limitations for woodland use or management due to restricted rooting depths. Soils shallow to hard rock, hardpan, or other layers in the soil that restrict roots are examples.

Subclass c (clayey soils). Soils having restrictions or limitations for woodland use or management due to the kind or amount of clay in the upper portion of the soil profile.

Subclass s (sandy soils). Sandy soils with little or no textural B horizons and having moderate to severe restrictions or limitations for woodland use or management. These soils impose equipment limitations, have low moisture holding capacity, and normally are low in available plant nutrients.

Subclass f (fragmental or skeletal soils). Soils with restrictions or limitations for woodland use or management due to large amounts of coarse fragments in the profile over 2 mm and less than 10 inches, but includes flaggy soils.

Subclass r (relief or slope steepness). Soils with restrictions or limitations for woodland use or management due only to steepness of slope.

Subclass o (slight or no limitations). Soils with no significant restrictions or limitations for woodland use or management.

Some kinds of soil may have more than one set of subclass characteristics. Priority in placing each kind of soil into a subclass is in the order that the subclass characteristics are listed above.

The third element in the symbol indicates the degree of hazards or limitations, and the general suitability of the soils for certain kinds of trees. The three management problems considered here are: (1) erosion hazard, (2) equipment restrictions, and (3) seedling mortality.

The numeral 1 indicates soils with no to slight management problems, and they are best suited for needleleaf trees.

The numeral 2 indicates soils with one or more moderate management problems, and they are best suited for needleleaf trees.

The numeral 3 indicates soils with one or more severe management problems, and they are best suited for needleleaf trees.

The numeral 4 indicates soils with no to slight management problems, and they are best suited for broadleaf trees.

The numeral 5 indicates soils with one or more moderate management problems, and they are best suited for broadleaf trees.

The numeral 6 indicates soils with one or more severe management problems, and they are best suited for broadleaf trees.

The numeral 7 indicates soils with no to slight management problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 8 indicates soils with one or more moderate management problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 9 indicates soils with one or more severe management problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 0 indicates the soils are not suitable for the production of major commercial wood products.

TABLE 1 - GUIDE FOR WOODLAND SUITABILITY CLASSES
SOUTHERN COASTAL PLAIN AND BLACKBELT

Indicator Forest Type or Species	: 1 : Very : High : High	: 2 : High :	: 3 : Moderately : High	: 4 : Moderate :	: 5 : Low
	Site Index				
Cottonwood	(1): 106+	:	96-105	:	86-95
Yellow-poplar	(2): 106+	:	96-105	:	86-95
Sweetgum	(3): 96+	:	86-95	:	76-85
Water oaks	(4): 96+	:	86-95	:	66-75
Nuttall oak	(11): 96+	:	86-95	:	66-75
Loblolly pine	(5): 96+	:	86-95	:	66-75
Slash pine	(6): 96+	:	86-95	:	66-75
Shortleaf pine	(5): 86+	:	76-85	:	66-75
Longleaf pine	(6): 86+	:	76-85	:	56-65
Sand pine	(7): 86+	:	76-85	:	56-65
Sou.-red oak	(8): 86+	:	76-85	:	56-65
Water tupelo	(9): 86+	:	76-85	:	56-65
Redcedar	(10): 66+	:	56-65	:	35-45
	:	:	:	:	:

- (1) Broadfoot, W. M., 1960, Field Guide for Evaluating Cottonwood Sites, USFS Occ. Paper 178 (Fig. 4).
- (2) Doolittle, W. T., 1957, Site Index Curves for Yellow-poplar-So. Appalachians.
- (3) Broadfoot, W. M., 1959, Guide for Evaluating Sweetgum Sites, USFS Occ. Paper 176 (Fig. 4).
- (4) Broadfoot, W. M., 1963, Guide for Evaluating Water Oak Sites in the Mid-south, USFS Res. Paper S0-1 (Fig. 4).
- (5) Coile, T. S. and F. X. Schumacher, Jour. For. 55:432-435 (Fig. 4).
- (6) U. S. Forest Service, 1929, Volume, Yield, and Stand Tables for Second Growth Southern Pines, USDA Misc. Publ. 50 (Fig. 2, 3, 4).
- (7) Coile, T. S. and F. X. Schumacher, 1960, Growth and Yields for Natural Stands of the Southern Pine (Fig. 61).
- (8) Schnur, L. G., 1937, Yield, Stand and Volume Tables for Even-Aged Upland Oak Forests, USDA Tech. Bull. 560, Fig. 2.
- (9) Applequist, M. B., 1959, Soil-Site Studies, Sou. Hardwoods (Fig. 7).
- (10) TVA 1948, Site Curves, E. Redcedar, Tennessee Valley.
- (11) Broadfoot, W. M., Unpublished manuscript. Sou. For. Expmt. Sta., 1966.

Table 3, SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY, is a summary of the most important interpretations for a woodland suitability group of soils.

Column one (1) includes the suitability group symbol and a brief description of the group of soils, including their important hazards and limitations for woodland use and management.

Column two (2) is a tabulation of the mapping units within each woodland suitability group.

Column three (3) is a list of some commercially-important tree species which occur on the soils in each suitability group.

Column four (4) shows the site class (site index rounded off to the nearest 10-foot interval) for the most important tree species listed in column three.

Column five (5) lists some of the most important tree species which are suitable for planting or direct seeding on the soils in each suitability group.

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 1 of 10

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1) <u>Acadia</u> silt loam to fine sandy loam 0-5% slopes	(2) <u>Loblolly pine</u> <u>Shortleaf pine</u> <u>Sweetgum</u> <u>Water oaks</u>	(3) 83+5 75+5 80 80	(4) 77-89 69-80 75-85 75-85	(5) slight	(6) moderate	(7) slight	(8) Loblolly pine Sweetgum	(9) 3w8
<u>Alaga</u> loamy sand, 0-30% slopes	<u>Loblolly pine</u> <u>Shortleaf pine</u>	78+6 71+6	72-85 65-77	slight	moderate	severe	Loblolly pine Slash pine Shortleaf pine	3s3
<u>Angie</u> sandy loam to fine sandy loam 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> <u>Shortleaf pine</u> <u>Water oak</u> <u>Red oaks</u>	86+4 90* 78 85* 80*	80-90 80-100 70-85 80-90 77-93	slight	moderate	slight	Loblolly pine Sweetgum	2w8
<u>Aycock</u> silt loam to fine sandy loam 0-12% slopes, sl. to mod. eroded, lower slopes	<u>Loblolly pine</u> <u>Sweetgum</u> <u>Upland oaks</u>	87 90 -	82-93 80-100 70-90	slight	slight	slight	Loblolly pine	2o7
upper slopes	<u>Loblolly pine</u> <u>Shortleaf pine</u>	81+5 73	75-86 68-79				Loblolly pine Shortleaf pine	3o1
<u>Beauregard</u> silt loam to fine sandy loam 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> <u>White oaks</u> <u>Red oaks</u>	91+6 90 80 80	85-97 80-100 70-90 70-90	slight	moderate	slight	Loblolly pine Sweetgum	2w8
<u>Bibb</u> ** very fine sandy loam to fine sandy loam, 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> <u>Cottonwood</u> <u>Green ash</u> <u>Cherrybark oak</u> <u>Nuttall oak</u> <u>Water oak</u> <u>Willow oak</u> <u>Sycamore</u> <u>Tupelos</u> <u>Yellow-poplar</u> <u>White oaks</u>	95+6 90+9 100 86+12 95+6 102+8 90+10 91+8 - - - - -	88-102 78-99 80-110 64-98 83-100 90-109 78-97 81-95 - - - - -	slight	severe	moderate to severe	Loblolly pine Sweetgum Sycamore Yellow-poplar Green ash Cottonwood Cherrybark oak Nuttall oak	2w9
<u>Bienville</u> loamy sand, 0-12% slopes	<u>Loblolly pine</u> <u>Shortleaf pine</u>	83 74	76-88 68-79	slight	moderate	severe	Slash pine Loblolly pine Shortleaf pine	3s3
<u>Binnsville</u> clay to silty clay, 0-12% slopes, sl. to severely eroded	<u>E. redcedar</u>	44	38-50	slight	moderate	severe	E. redcedar	4d3
<u>Boswell</u> silt loam to sandy loam, 0-17% slopes, sl. to mod. eroded.	<u>Loblolly pine</u> <u>Shortleaf pine</u>	82+4 72+4	76-85 66-77	slight	moderate	moderate	Loblolly pine Shortleaf pine	3c2

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Boswell (continued) gravelly fine sandy loam, sl. or mod. eroded	Loblolly pine Shortleaf pine	73+9 66+6	64-82 60-72	slight	slight	moderate	Loblolly pine Shortleaf pine	4f2
clay to silty clay, severely eroded	Loblolly pine	73+8	65-81	moderate	moderate	moderate	Loblolly pine	4c2
Bowie - fine sandy loam to loamy fine sand 0-12% slopes, sl. or mod. eroded.	Loblolly pine Shortleaf pine	83+4 77+4	76-88 70-82	slight	slight	slight	Loblolly pine	3e1
Boy loamy fine sand to loamy sand, 0-17% slopes	Loblolly pine Shortleaf pine	83+5 75+5	76-89 70-80	slight	moderate	moderate	Loblolly pine Slash pine Shortleaf pine	3e2
Brooksville clay, 0-12% slopes, sl. to severely eroded	E. redcedar	40	35-45	slight	moderate	moderate	E. redcedar	4c2c
Bub gravelly clay loam to gravelly sandy loam, 0-17% slopes, sl. or mod. eroded.	Shortleaf pine Loblolly pine	61 70	55-66 65-75	slight	moderate	moderate	Shortleaf pine	4f2
Caddo silt loam to fine sandy loam 0-5% slopes	Loblolly pine Sweetgum Water oak Shortleaf pine White oaks Red oaks	86+5 94 88 75+5 80* 80*	80-95 85-100 80-95 70-80 75-85 75-85	slight	severe	moderate	Loblolly pine	2w9
Cahaba sandy loam to loamy sand, 0-17% slopes, sl. or mod. eroded. lower slopes and terraces	Loblolly pine Sweetgum Red oaks White oaks	88+5 90* - -	80-95 80-100 - -				Loblolly pine Sweetgum Cherrybark oak Yellow-poplar Shumard oak	2e7
upper slopes	Loblolly pine Shortleaf pine	82 66	75-86 60-74	slight	slight	slight	Loblolly pine	3e1
Carnegie loam, 0-12% slopes, sl. or mod. eroded	Loblolly pine Shortleaf pine	80 70	72-86 65-75	slight	slight	slight	Loblolly pine Shortleaf pine	3e1

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Catalpa ** silty clay to silty clay loam 0-5% slopes	Sweetgum Cottonwood Green oak Sycamore Hackberry Elms	100* 108 101* - - -	88-107 88-118 79-106 - - -	slight	moderate	moderate	Cottonwood Sycamore Sweetgum	1w5
Chastain ** silt loam to fine sandy loam 0-5% slopes	Loblolly pine Sweetgum Cottonwood Green ash Water oak Willow oak Nuttall oak Cherrybark oak Shumard oak Sycamore Yellow-poplar Tupelos White oaks	90+5 94+11 90* 88+10 89+13 92+9 110+3 89+4	85-97 82-101 70-100 66-93 77-96 82-96 98-112 77-94	slight	severe	severe	Cottonwood Sweetgum Nuttall oak Cherrybark oak Sycamore Yellow-poplar	2w9
Conroe loamy fine sand to loamy sand, 0-12% slopes, sl. or mod. eroded	Loblolly pine Shortleaf pine	77+5 70	70-85 65-75	slight	slight	slight	Loblolly pine Shortleaf pine	3o1
gravelly loamy fine sand, 0- 12% slopes	Loblolly pine Shortleaf pine	70+5 60	61-76 55-66	slight	slight	moderate	Loblolly pine Shortleaf pine	4f2
Counts fine sandy loam 0-12% slopes	Loblolly pine Shortleaf pine	80 70	75-86 65-75	slight	slight	slight	Loblolly pine Shortleaf pine	3o1
Craven fine sandy loam 0-17% slopes, sl. or mod. eroded	Loblolly pine Shortleaf pine	81+4 66+5	76-85 60-75	slight	moderate	slight	Loblolly pine Shortleaf pine	3c2
Eustis loamy fine sand to sand, 0-30% slopes	Loblolly pine Shortleaf pine	78+3 71+5	74-85 65-76	slight	moderate	severe	Loblolly pine Slash pine	3s3
Eutaw clay to silty clay loam, 0-5% slopes	Sweetgum Loblolly pine Red oaks White oaks E. redcedar	80 83+3 - - -	70-90 75-90 - - -	slight	moderate	moderate	Loblolly pine E. redcedar	3c8
Faceville fine sandy loam to sandy loam, 0-17% slopes, sl. or mod. eroded	Loblolly pine Shortleaf pine	80 70*	75-86 65-75	slight	slight	slight	Loblolly pine Shortleaf pine	3o1

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Garner</u> clay to clay loam, 0-12% slopes, sl. or mod. eroded	<u>Loblolly pine</u> Shortleaf pine	80 70	76-85 66-75	slight	moderate	moderate	Loblolly pine	3c2
<u>Gore</u> very fine sandy loam, 0-5% slopes	<u>Loblolly pine</u> Shortleaf pine	76 70	70-82 65-75	slight	moderate	moderate	Loblolly pine Shortleaf pine	3c2
<u>Greenville</u> fine sandy loam 0-17% slopes, sl. or mod. eroded	<u>Loblolly pine</u> Shortleaf pine	80 70	76-85 66-75	slight	slight	slight	Loblolly pine Shortleaf pine	3ol
<u>Guin</u> gravelly fine sandy loam, 0-17% slopes, sl. or mod. eroded	<u>Loblolly pine</u> <u>Shortleaf pine</u>	65+3 60	63-70 56-65	slight	slight	moderate to severe	Shortleaf pine Loblolly pine	4f2
<u>Gunter</u> fine sandy loam 0-17% slopes, sl. or mod. eroded	<u>Loblolly pine</u> Shortleaf pine	80 70	75-85 65-75	slight	slight	slight	Loblolly pine Shortleaf pine	3ol
<u>Houlka</u> ** clay to silty clay loam, 0-5% slopes	<u>Sweetgum</u> Green ash Cottonwood Sycamore Yellow-poplar Red oaks White oaks Water oak	105* 85+5 105* - - - - 100*	95-110 63-97 85-115 - - - - 90-105	slight	severe	severe	Sweetgum Cherrybark oak Nuttall oak Sycamore Yellow-poplar	1w6
<u>Houston</u> clay, 0-12% slopes, sl. to severely eroded	<u>E. redcedar</u>	40	35-45	slight	moderate	moderate	E. redcedar	4c2c
<u>Iuka</u> ** silt loam to fine sandy loam 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> Cottonwood Sycamore Yellow-poplar Red oaks White oaks	97+7 102+6 100*	90-106 90-109 80-115 - - - -	slight	moderate	moderate	Loblolly pine Sweetgum Cottonwood Yellow-poplar Cherrybark oak Nuttall oak Sycamore	1w8
<u>Izagora</u> ** silt loam to fine sandy loam 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> Yellow-poplar Red oaks White oaks Hickories	86 - - - - -	80-92 80-100 - - - -	slight	moderate	moderate	Cherrybark oak Loblolly pine Yellow-poplar Shumard oak	2w8

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Kalmia</u> ** sandy loam to loamy sand, 0-17% slopes, sl. or mod. eroded lower slopes and terraces	<u>Loblolly pine</u> <u>Sweetgum</u> Water oak Yellow-poplar Black tupelo Red oaks White oaks	88+5 - - - - - -	82-95 80-90 80-95 - - - -				Loblolly pine Yellow-poplar Shumard oak	2e7
upper slopes	Loblolly pine Shortleaf pine	80 70	75-85 65-75	slight	slight	slight	Loblolly pine Shortleaf pine	3e1
<u>Kaufman</u> ** clay, 0-5% slopes	<u>Sweetgum</u> Cottonwood Water oak Red oaks White oaks Green ash Elms Hickories	100* - - - - - - -	90-110 90-120 90-105 - - - - -	slight	severe	moderate to severe	Sweetgum Cherrybark oak Nuttall oak Durand oak Sycamore Water oak Cottonwood	1w6
<u>Kenansville</u> loamy sand or sand, 0-5% slopes	<u>Loblolly pine</u> Shortleaf pine	80* 70*	75-85 75-85	slight	moderate	moderate	Slash pine Loblolly pine Shortleaf pine	3s2
<u>Kirvin</u> fine sandy loam 0-17% slopes, sl. or mod. eroded	<u>Loblolly pine</u> Shortleaf pine	80+4 74+4	76-85 70-80	slight	slight	slight	Loblolly pine Shortleaf pine	3e1
sandy clay to clay, 5-17% slopes, severely eroded	Loblolly pine	74*	-	moderate	moderate	moderate	Loblolly pine	4c2
<u>Leaf</u> ** silt loam to fine sandy loam 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> Red oaks White oaks Water oaks	86+4 - - - -	80-95 75-90 - - -	slight	severe	moderate to severe	Loblolly pine Cherrybark oak Sweetgum Shumard oak	2w9
<u>Leefield</u> loamy sand, 0-12% slopes	<u>Loblolly pine</u> Shortleaf pine	80 70	76-85 66-75	slight	moderate	moderate	Slash pine Loblolly pine Shortleaf pine	3s2
<u>Leeper</u> clay to silty clay loam, 0-5% slopes	Green ash <u>Cottonwood</u> Sweetgum Sycamore Durand oak Hackberry Elms	94 110* 95*	72-99 85-115 90-105 - - - -	slight	severe	severe	Cottonwood Sweetgum Green ash Sycamore	1w6
<u>Lucy</u> loamy fine sand to loamy sand, 0-17% slopes	<u>Loblolly pine</u> Shortleaf pine	84 73+4	76-90 66-78	slight	moderate	moderate	Slash pine Loblolly pine Shortleaf pine	3s2

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1) <u>Luverne</u> loam to loamy sand, 0-30% slopes, sl. to mod. eroded	<u>Loblolly pine</u> Shortleaf pine	83 73	76-88 67-78	slight to moderate	moderate	slight	Loblolly pine Shortleaf pine	3c2
silty clay, 5-30% slopes, severely eroded	<u>Loblolly pine</u> Shortleaf pine	74 64	65-79 58-70	moderate	moderate	moderate	Loblolly pine	4c2
<u>Mantachie</u> ** loam to fine sandy loam, 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> Cottonwood Green ash Water oak Willow oak Yellow-poplar Sycamore Tupelos Red oaks White oaks Black walnut Hackberry	98+7 100+6 92 88+10 94+5 96+6 - - - - - - - - -	90-106 88-107 72-102 66-93 82-101 86-100 - - - - - - - - -	slight	severe	moderate to severe	Loblolly pine Sweetgum Cottonwood Sycamore Yellow-poplar Cherrybark oak Nuttall oak Green oak	1w9
<u>Marietta</u> ** silt loam to very fine sandy loam, 0-5% slopes	<u>Sweetgum</u> Cottonwood Green ash Sycamore Yellow-poplar Red oaks White oaks Hackberry Elms	- - - - - - - - -	90-105 90-110 80-100 - - - - - -	slight	moderate	moderate	Cottonwood Sycamore Yellow-poplar Sweetgum	1w5
<u>Mashulaville</u> ** loam to sandy loam, 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> Water oak Red oaks White oaks	85 - - - -	80-90 70-85 65-80 - -	slight	severe	severe	Loblolly pine Sweetgum Shumard oak	3w9
<u>Mayhew</u> silty clay to silt loam, 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> Water oak Sycamore Cottonwood	86+6 90* 90* - -	80-95 80-100 80-100 - -	slight	severe	severe	Loblolly pine Sycamore Cottonwood	2w9
<u>McKamie</u> loam to fine sandy loam, 0-5% slopes	<u>Loblolly pine</u> Shortleaf pine	80 70	76-85 66-75	slight	moderate	moderate	Loblolly pine Shortleaf pine	3c2
<u>McLaurin</u> loam to loamy sand, 0-17% slopes, slight or mod. eroded	<u>Loblolly pine</u> Shortleaf pine	83 70	78-88 65-76	slight	slight	slight	Loblolly pine Shortleaf pine	3o1
<u>Myatt</u> ** silt loam to fine sandy loam 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> Water oak Sycamore Yellow-poplar Red oaks White Oaks Tupelos	95+6 92 86 - - - - -	88-102 77-99 71-93 - - - - -	slight	severe	severe	Loblolly pine Shumard oak Sweetgum Yellow-poplar Sycamore	2w9

TABLE 2 . SOIL RATINGS FOR WOODLAND USE

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TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1) <u>Red Bay</u> fine sandy loam, 0-17% slopes, sl. or mod. eroded	(2) <u>Loblolly pine</u> Shortleaf pine	(3) 85* 75	(4) 80-90 70-80	(5) slight	(6) slight	(7) slight	(8) Loblolly pine Shortleaf pine	(9) 3o1
<u>Ruston</u> fine sandy loam, 0-17% slopes, sl. to severely eroded	<u>Loblolly pine</u> Shortleaf pine	<u>84+5</u> <u>75+4</u>	76-90 66-80	slight	slight	slight	Loblolly pine Shortleaf pine	3o1
<u>Saffell</u> gravelly fine sandy loam, 0-17% slopes, sl. or mod. eroded	<u>Loblolly pine</u> <u>Shortleaf pine</u>	<u>75+7</u> <u>65+5</u>	68-84 60-72	slight	slight	moderate	Shortleaf pine Loblolly pine	4f2
<u>Savannah</u> silt loam to sandy loam, 0-12% slopes	<u>Loblolly pine</u> Shortleaf pine Sweetgum Red oaks Water oaks	<u>81+5</u> <u>76+4</u> 80*	75-86 70-81 70-90	slight	slight	slight	Loblolly pine Slash pine	3o7
<u>Sawyer</u> silt loam to sandy loam, 0-5% slopes	<u>Loblolly pine</u> Shortleaf pine Sweetgum Red oaks White oaks	86 76 90 - -	80-95 70-85 80-95 - -	slight	moderate	slight	Loblolly pine Slash pine	2w8
<u>Stigler</u> fine sandy loam, 0-5% slopes	<u>Loblolly pine</u> Shortleaf pine Sweetgum <u>Water oak</u>	79 70 80* 80	75-85 65-76 75-85 76-85	slight	moderate	slight to moderate	Loblolly pine Sweetgum	3w8
<u>Stough</u> silt loam to sandy loam, 0-5% slopes	<u>Loblolly pine</u> Sweetgum Red oaks White oaks Black tupelo	<u>88+5</u> - - - -	82-95 70-95	slight	moderate	slight to moderate	Loblolly pine Cherrybark oak Shumard oak	2w8
<u>Sumter</u> clay to silty clay loam, 0-17% slopes, sl. to severely eroded	E. redcedar	<u>37+5</u>	32-45	slight to moderate	moderate	moderate	E. redcedar	4c2c
<u>Summerfield</u> very fine sandy loam, 0-5% slopes	<u>Loblolly pine</u> Sweetgum Water oaks	78 80	74-85 74-86	slight	moderate	slight to moderate	Loblolly pine Sweetgum	3w8

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Susquehanna</u> clay loam to fine sandy loam, 0-17% slopes, sl. or mod. eroded	Loblolly pine Shortleaf pine	78+5 68+5	72-85 60-76	slight	moderate	moderate	Loblolly pine Shortleaf pine	3c2
clay, 5-30% slopes, severely eroded	Loblolly pine	73	67-78	moderate	moderate	moderate	Loblolly pine	4c2
<u>Trinity</u> clay to clay loam, 0-5% slopes	<u>Cottonwood</u> Green ash Sweetgum Sycamore Hackberry Elms	- - - - - -	85-115 75-100	slight	severe	moderate to severe	Cottonwood Sweetgum Sycamore Green ash	1w6
<u>Troup</u> sandy loam to loamy sand, 0-17% slopes	<u>Loblolly pine</u> Shortleaf pine	80 70	75-85 66-78	slight	moderate	moderate	Loblolly pine Slash pine Shortleaf pine	3s2
<u>Tuscumbia</u> ** clay to silty clay loam, 0-5% slopes	<u>Sweetgum</u> <u>Cottonwood</u> Green ash Sycamore Red oaks White oaks Hackberry Elms	86* 97* - - - - - -	80-90 90-115 85-105	slight	severe	severe	Sweetgum Cottonwood Sycamore Green ash	2w6
<u>Una</u> ** clay to silty clay loam, 0-5% slopes	<u>Sweetgum</u> <u>Cottonwood</u> Green ash Sycamore Water tupelo Red oaks White oaks	101+8 90* 94+3	87-103 80-100 72-106	slight	severe	severe	Sweetgum Cottonwood Sycamore Nuttall oak Green ash	2w6
<u>Vaiden</u> clay to silty clay loam, 2-17% slopes, sl. to severely eroded	<u>Loblolly pine</u> Shortleaf pine S. red oak E. redcedar	76+5 68 70 45	70-85 65-76 65-76 40-50	slight to moderate	moderate	moderate	Loblolly pine E. redcedar	3c8
<u>Vaquuse</u> sandy loam, 0-12% slopes, sl. or mod. eroded	<u>Loblolly pine</u> Shortleaf pine	80 70*	76-85 65-75	slight	slight	slight	Loblolly pine Shortleaf pine	3o1
<u>Verona</u> ** silty clay to clay loam, 0-5% slopes	<u>Sweetgum</u> <u>Cottonwood</u> Green ash Sycamore Yellow-poplar Red oaks White oaks Water oaks Hackberry Elms	95* 100* - - - - - - -	90-100 90-110 85-105	slight	severe	severe	Sweetgum Cottonwood Sycamore Yellow-poplar Green ash	2w6

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
Mapping Units	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1) <u>Wagram</u> loamy sand to sand, 0-17% slopes	(2) <u>Loblolly pine</u> <u>Shortleaf pine</u>	(3) 80 70	(4) 75-85 65-75	(5) slight	(6) moderate	(7) moderate	(8) Loblolly pine Slash pine Shortleaf pine	(9) 3s2
<u>Wahee</u> ** silt loam to sandy loam, 0-5% slopes	<u>Loblolly pine</u> <u>Sweetgum</u> <u>Cherrybark oak</u> <u>Black cherry</u> <u>White oaks</u> <u>Red oaks</u> <u>Black tupelo</u>	86+4 90 102	80-95 70-97 84-105	slight	moderate	moderate	Loblolly pine Sweetgum Cherrybark oak Shumard oak Yellow-poplar	2w8
<u>Watsonia</u> clay to silty clay, 0-8% slopes, sl. to severely eroded	E. redcedar	40	36-45	slight	moderate	severe	E. redcedar	4d3
<u>Wehadkee</u> ** silt loam to sandy loam, 0-5% slopes	<u>Loblolly pine</u> <u>Green ash</u> <u>Cottonwood</u> <u>Sweetgum</u> <u>Water oak</u> <u>Willow oak</u> <u>Red oaks</u> <u>White oaks</u>	100+9 - - - - - - -	90-110 70-100 80-110 85-100 80-95 80-95 - -	slight	severe	moderate to severe	Loblolly pine Green ash Cottonwood Cherrybark oak Nuttall oak Sweetgum Sycamore Yellow-poplar	1w9
<u>Wicksburg</u> loamy sand to sand, 0-12% slopes	Loblolly pine Shortleaf pine Longleaf pine	80 70 70	75-86 65-75 65-75	slight	moderate	moderate	Loblolly pine Shortleaf pine	3s2
<u>Wilcox</u> silty clay to clay loam, 0-12% slopes, sl. or mod. eroded	<u>Loblolly pine</u> <u>Shortleaf pine</u>	81+3 68+5	76-85 63-75	slight	moderate	moderate	Loblolly pine	3c2
<u>Wrightsville</u> silty clay to silt loam, 0-5% slopes	Loblolly pine Sweetgum Water oak	84 80* 80*	76-92 75-85 75-85	slight	severe	moderate to severe	Loblolly pine	3w9

* Estimated site index based on a similar soil or another tree species on the same soil.

** Information for broadleaf trees developed by Walter M. Broadfoot, USDA Forest Service, Southern Forest Experiment Station.

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

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Woodland Suitability Group (Symbol and Description)	Soil Mapping Units	Productivity		Species Suitability for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
<u>lw5</u> Seasonally wet soils with very high potential productivity; moderate equipment limitations and slight to moderate seedling mortality; best suited for southern hardwoods.	<u>Catalpa</u> silty clay to silty clay loam, 0-5% slopes <u>Marietta</u> silt loam to fine sandy loam, 0-5% slopes	Sweetgum Cottonwood Sycamore Green ash Hackberry Elms Red oaks White oaks	100 100 - 110 - 100 - - - -	Sweetgum Cottonwood Sycamore
<u>lw6</u> Excessively wet soils with very high potential productivity; severe equipment limitations and moderate to severe seedling mortality; best suited for water-tolerant hardwoods.	<u>Houlka</u> clay to silty clay loam; 0-5% slopes <u>Kaufman</u> clay, 0-5% slopes <u>Leaper</u> clay to silty clay loam, 0-5% slopes <u>Trinity</u> clay to clay loam, 0-5% slopes	Sweetgum Green ash Cottonwood Sycamore Water oaks Red oaks White oaks	100 90 100 - 110 - 100 - -	Sweetgum Nuttall oak Sycamore Durand oak
<u>lw8</u> Seasonally wet soils with very high potential productivity; moderate equipment limitations and slight to moderate seedling mortality; suitable for southern hardwoods or southern pines.	<u>Iuka</u> silt loam to fine sandy loam, 0-5% slopes	Loblolly pine Sweetgum Cottonwood Sycamore Yellow-poplar Red oaks White oaks	100 100 100 - - - -	Loblolly pine Sweetgum Cottonwood Sycamore Yellow-poplar Cherrybark oak Nuttall oak
<u>lw9</u> Excessively wet soils with very high potential productivity; severe equipment limitations and moderate to severe seedling mortality; suitable for water-tolerant hardwoods or southern pines.	<u>Mantachie</u> loam to fine sandy loam, 0-5% slopes <u>Wehadkee</u> silt loam to sandy loam, 0-5% slopes	Loblolly pine Sweetgum Cottonwood Green ash Water oaks Sycamore Tupelos Red oaks White oaks Hackberry	100 100 100 - 100 - - - - -	Loblolly pine Sweetgum Cottonwood Sycamore Cherrybark oak Nuttall oak Yellow-poplar
<u>2o7</u> Loamy soils with high potential productivity; no serious management problems; suitable for southern pines or southern hardwoods.	<u>Aycock</u> (lower slopes) silt loam to sandy loam, 0-12% slopes, slightly to moderately eroded <u>Cahaba</u> (lower slopes) sandy loam to loamy sand, 0-17% slopes, slightly to moderately eroded <u>Kalmia</u> (lower slopes) sandy loam to loamy sand, 0-17% slopes, slightly to moderately eroded <u>Ochlockonee</u> silt loam to sandy loam, 0-5% slopes <u>Prentiss</u> silt loam to sandy loam, 0-5% slopes	Loblolly pine Sweetgum Red oaks White oaks Black cherry Black walnut Black tupelo	90+ 90+ - - - - -	Loblolly pine Sweetgum Cherrybark oak Yellow-poplar Shumard oak Black walnut
<u>2w6</u> Excessively wet soils with high potential productivity; severe equipment limitations and moderate to severe seedling mortality; best suited for water-tolerant hardwoods	<u>Tuscumbia</u> clay to silty clay loam, 0-5% slopes <u>Una</u> clay to silty clay loam 0-5% slopes <u>Verona</u> silty clay to clay loam, 0-5% slopes	Sweetgum Cottonwood Green ash Sycamore Tupelos Red oaks White oaks	90 90 - 100 90 - - - -	Cottonwood Sycamore Sweetgum Nuttall oak Green ash

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

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Woodland Suitability Group (Symbol and Description)	Soil Mapping Units	Productivity		Species Suitability for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
<u>2w8</u> Seasonally wet soils with high potential productivity; moderate equipment limitations and slight to moderate seedling mortality, suitable for southern hardwoods or southern pines.	<u>Angie</u> sandy loam to fine sandy loam, 0-5% slopes <u>Beauregard</u> silt loam to fine sandy loam, 0-5% slopes <u>Izagora</u> silt loam to fine sandy loam, 0-5% slopes <u>Pheba</u> sandy loam to loamy sand, 0-5% slopes <u>Sawyer</u> silt loam to sandy loam, 0-5% slopes <u>Stough</u> silt loam to sandy loam, 0-5% slopes <u>Wahee</u> silt loam to sandy loam, 0-5% slopes	Sweetgum Loblolly pine Water oaks Red oaks White oaks	90 90 - - -	Loblolly pine Sweetgum Cherrybark oak Shumard oak Yellow-poplar
<u>2w9</u> Excessively wet soils with high potential productivity; severe equipment limitations and moderate to severe seedling mortality; suitable for water-tolerant hardwoods and/or southern pines.	<u>Bibb</u> very fine sandy loam to fine sandy loam, 0-5% slopes <u>Caddo</u> silt loam to fine sandy loam, 0-5% slopes <u>Chastain</u> silt loam to fine sandy loam, 0-5% slopes <u>Leaf</u> silt loam to fine sandy loam, 0-5% slopes <u>Mayhew</u> silty clay to silt loam, 0-5 % slopes <u>Myatt</u> silt loam to fine sandy loam, 0-5% slopes	Loblolly pine Sweetgum Cottonwood Green ash Sycamore Red oaks White oaks Water oaks Tupelos	90+ 90 90 - 100 - - - - - -	Loblolly pine Sweetgum Sycamore Cottonwood Nuttall oak Shumard oak
<u>3ol</u> Loamy soils with moderately high potential productivity; no serious management problems; best suited for southern pines	<u>Aycock</u> (upper slopes) silt loam to fine sandy loam, 0-12% slopes, slightly to moderately eroded <u>Bowie</u> fine sandy loam to loamy fine sand, 0-12% slopes slightly or moderately eroded <u>Cahaba</u> (upper slopes) sandy loam to loamy sand, 0-17% slopes, slightly or moderately eroded <u>Carnegie</u> loam, 0-12% slopes slightly or moderately eroded <u>Conroe</u> loamy sand, 0-12% slopes, slightly or moderately eroded <u>Counts</u> fine sandy loam, 0-12% slopes, slightly or moderately eroded <u>Faceville</u> fine sandy loam to sandy loam, 0-17% slopes, slightly or moderately eroded <u>Greenville</u> fine sandy loam, 0-17% slopes, slightly or moderately eroded <u>Gunter</u> fine sandy loam, 0-17% slopes, slightly or moderately eroded <u>Kalmia</u> (upper slopes) 0-12% slopes, slightly or moderately eroded <u>Kirvin</u> fine sandy loam, 0-17% slopes, slightly or moderately eroded <u>McLaurin</u> loam to loamy sand 0-17% slopes, slightly or moderately eroded <u>Nacogdoches</u> clay loam to sandy loam, 0-17% slopes, slightly or moderately eroded <u>Red Bay</u> fine sandy loam, 0-17% slopes, slightly or moderately eroded	Loblolly pine Shortleaf pine	80 70	Loblolly pine Shortleaf pine

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITYPage 3 of 4

Woodland Suitability Group (Symbol and Description)	Soil Mapping Units	Productivity		Species Suitability for Planting
		Tree Species	Site Class	
(1) <u>3ol</u> (Cont'd)	(2) <u>Ruston</u> fine sandy loam, 0-17% slopes, slightly to severely eroded <u>Vaucluse</u> sandy loam, 0-12% slopes, slightly or moderately eroded	(3)	(4)	(5)
<u>3o7</u> Loamy soils with moderately high potential productivity; no serious management problems; suitable for southern pines or hardwoods.	<u>Ora</u> silt loam to fine sandy loam, 0-12% slopes <u>Savannah</u> silt loam to sandy loam, 0-12% slopes	Loblolly pine Shortleaf pine Sweetgum Red oaks White oaks	80 70 80 - -	Loblolly pine Sweetgum
<u>3w8</u> Seasonally wet soils with moderately high potential productivity; moderate equipment limitations and slight to moderate seedling mortality; suitable for southern pines or hardwoods	<u>Acadia</u> silt loam to sandy loam, 0-5% slopes <u>Stigler</u> fine sandy loam, 0-5% slopes <u>Summerfield</u> very fine sandy loam, 0-5% slopes	Loblolly pine Sweetgum Water oaks Black tupelo Red oaks White oaks Shortleaf pine	80 80 80 - - - -	Loblolly pine Sweetgum Slash pine
<u>3w9</u> Excessively wet soils with moderately high potential productivity; severe equipment limitations and moderate to severe seedling mortality; suitable for southern hardwoods or southern pines.	<u>Mashulaville</u> loam to sandy loam, 0-5% slopes <u>Wrightsville</u> silty clay to silt loam, 0-5% slopes	Loblolly pine Sweetgum Water oaks Red oaks White oaks	80 80 80 - -	Loblolly pine Sweetgum
<u>3c2</u> Clayey soils with moderately high potential productivity; moderate equipment limitations and slight to moderate seedling mortality best suited for southern pines	<u>Boswell</u> silt loam to sandy loam, 0-17% slopes, slightly or moderately eroded <u>Craven</u> fine sandy loam, 0-17% slopes, slightly or moderately eroded <u>Garner</u> clay to clay loam, 0-12% slopes, slightly or moderately eroded <u>Gore</u> very fine sandy loam, 0-5% slopes <u>Luverne</u> loam to loamy sand; 0-30% slopes, slightly or moderately eroded <u>McKamie</u> loam to sandy loam, 0-5% slopes <u>Susquehanna</u> clay loam to fine sandy loam, 0-30% slopes, slightly or moderately eroded <u>Wilcox</u> silty clay loam to silt loam, 0-5% slopes	Loblolly pine Shortleaf pine	80 70	Loblolly pine Shortleaf pine
<u>3c8</u> Clayey soils with moderately high potential productivity; moderate equipment limitations and moderate seedling mortality; suitable for southern hardwoods, southern pines, or redcedar.	<u>Eutaw</u> clay to silty clay loam, 0-5% slopes <u>Oktibbeha</u> clay to silt loam 0-12% slopes <u>Vaiden</u> clay to silty clay loam, 0-17% slopes, slightly to severely eroded	Loblolly pine E. redcedar Shortleaf pine Red oaks White oaks	80 50 70 - -	Loblolly pine E. redcedar
<u>3s2</u> Soils with sandy surface, moderately high potential productivity; moderate equipment limitations and moderate seedling mortality; best suited for southern pines.	<u>Boy</u> loamy sand, 0-17% slopes <u>Kenansville</u> loamy sand to sand, 0-5% slopes <u>Leefield</u> loamy sand, 0-12% slopes	Loblolly pine Shortleaf pine	80+ 70	Loblolly pine Slash pine Shortleaf pine

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

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Woodland Suitability Group (Symbol and Description)	Soil Mapping Units	Productivity		Species Suitability for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
<u>3s2</u> (cont'd)	<u>Lucy</u> loamy sand, 0-17% slopes <u>Troup</u> loamy sand, 0-17% slopes <u>Wagram</u> loamy sand to sand, 0-17% slopes <u>Wicksburg</u> loamy sand to sand, 0-17% slopes			
<u>3s3</u> Deep sandy soils with moderately high potential productivity; moderate equipment limitations and severe seedling mortality; best suited for southern pines	<u>Alaga</u> loamy sand, 0-30% slopes <u>Bienville</u> loamy sand, 0-12% slopes <u>Eutis</u> loamy sand to sand, 0-30% slopes	Loblolly pine Shortleaf pine	80 70	Slash pine Shortleaf pine Loblolly pine
<u>4d3</u> Shallow clayey soils with moderate potential productivity; moderate equipment limitations and severe seedling mortality; best suited for redcedar.	<u>Binnsville</u> clay to silty clay 0-12% slopes, slightly to severely eroded <u>Watsonia</u> clay to silty clay, 0-8% slopes, slightly to severely eroded	E. redcedar	40	E. redcedar
<u>4c2</u> Clayey soils with moderate potential productivity; moderate equipment limitations and moderate seedling mortality; best suited for southern pines.	<u>Boswell</u> clay to silty clay, 5-17% slopes, severely eroded <u>Kirvin</u> clay to sandy clay, 5-17% slopes, severely eroded <u>Luverne</u> silty clay, 5-30% slopes, severely eroded <u>Nacogdoches</u> clay to sandy clay, 5-17% slopes, severely eroded <u>Susquehanna</u> clay, 5-17% slopes, severely eroded	Loblolly pine Shortleaf pine	70 60	Loblolly pine
<u>4c2c</u> Clayey soils with moderate potential productivity; moderate equipment limitations and moderate seedling mortality; best suited for cedars.	<u>Brooksville</u> clay, 0-12% slopes, slightly to severely eroded. <u>Houston</u> clay, 0-12% slopes, slightly to severely eroded <u>Sumter</u> clay, 0-12% slopes, slightly to severely eroded	E. redcedar Osage orange (Bois d'arc)	40 -	E. redcedar
<u>4f2</u> Gravelly soils with moderate potential productivity; moderate seedling mortality and slight to moderate equipment limitations; best suited for southern pines.	<u>Boswell</u> gravelly fine sandy loam, 0-17% slopes, slightly to moderately eroded <u>Bub</u> gravelly clay loam, 0-17% slopes, slightly or moderately eroded <u>Conroe</u> gravelly loamy sand, 0-12% slopes, slightly or moderately eroded <u>Guin</u> gravelly fine sandy loam 0-17% slopes, slightly or moderately eroded <u>Paraloma</u> gravelly sandy loam, 0-17% slopes, slightly or moderately eroded <u>Saffell</u> gravelly fine sandy loam, 0-17% slopes, slightly to moderately eroded	Shortleaf pine Loblolly pine	60 70	Shortleaf pine Loblolly pine

